## **Chapter 2 DESCRIPTION OF THE PROPOSED ACTIONS**

## 2.1 Introduction

The 11 proposed actions described here are authorized, funded, or carried out by Reclamation by virtue of Congressional or Secretarial authorizations, Congressional appropriations, contracts with Reclamation, and facility ownership. Proposed actions include one or more of the following activities:

- Future storage of water in reservoirs and its release from dams that the United States owns and constructed for authorized purposes. Storage and releases occur in accordance with authorized project purposes, Reclamation contracts, Federal law, and State water rights.
- Future diversion or pumping of water into facilities that Reclamation owns or operates.
- Future hydropower generation at Reclamation powerplants.
- Future routine maintenance activities at dams, reservoirs, on-stream diversion structures and pumping plants, and Reclamation hydropower plants, regardless of whether the operation and maintenance responsibility has been transferred to another entity.
- Future provision of salmon flow augmentation by acquiring water through rental pools and leasing or acquiring natural flow rights. The total volume of flow augmentation per year from all proposed actions would not exceed 487,000 acre-feet. Reclamation's provision of flow augmentation is consistent with the proposed Nez Perce water rights settlement (Nez Perce Tribe et al. 2004). Reclamation's ability to provide salmon flow augmentation is contingent on State legislation.

The frontispiece shows the locations of facilities in the upper Snake River basin associated with the proposed actions; on the back of the frontispiece, three tables present summary information on the Federal storage, diversion, and power facilities included in the 11 proposed actions. These features and facilities are part of 12 Federal projects (Baker, Boise, Burnt River, Little Wood River, Lucky Peak, Mann Creek, Michaud Flats, Minidoka, Owyhee, Palisades, Ririe, and Vale Projects).

Reclamation's Operations Description for Bureau of Reclamation Projects in the Snake River Basin above Brownlee Reservoir (2004b) and the Operations and

Maintenance Addendum (see Appendix B) comprehensively describe the authorities, future operations, and routine maintenance for the proposed actions.

Although some of these 11 proposed actions involve the operation of federally owned powerplants whose capacity and energy are marketed by the Bonneville Power Administration, all 11 actions are wholly independent of each other and of the action of operating any other Reclamation or Army Corps of Engineers' projects in the Columbia River basin, including the 14 Federal dams and powerplants below Brownlee Reservoir that are operated as an integrated system for flood control and hydroelectric power generation. These 14 facilities are referred to as the Federal Columbia River Power System (FCRPS) in consultations that have taken and are taking place separately from the consultations that are being initiated with the submittal of this biological assessment. The operations of the federally owned powerplants involved in some of the 11 actions described in this biological assessment are not coordinated with the operations of other reservoirs in the FCRPS. Rather, the federally owned powerplants at the projects involved in this assessment are operated incidental to water releases made to serve the authorized purposes of the projects. These powerplants are operated without regard to how the FCRPS powerplants are operated.

# 2.2 **Duration of Proposed Actions**

The duration of all 11 proposed actions is 30 years (2005 through December 31, 2034). This is the period contemplated by Section III (the Snake River Flow Component) of the April 2004 Nez Perce Term Sheet (Term Sheet) for the proposed settlement of the Federal water right claims of the Nez Perce Tribe in the Snake River Basin Adjudication (Nez Perce Tribe et al. 2004). The Term Sheet applies, in part, to those actions involving the operation of the Reclamation projects located in Idaho but not those in Oregon.

In order to implement the settlement, a number of steps, including the passage of Federal and State legislation, Tribal approval, Snake River Basin Adjudication court approval, and the negotiation and execution of a number of legal documents, will need to be taken. As of the date of this biological assessment, none of these has been accomplished.

Notwithstanding this fact, Reclamation's proposed actions, to the extent that they involve the operation and maintenance of Reclamation projects located in Idaho, reflect the terms in the Snake River Flow Component of the Term Sheet. This assumes either that the settlement will be finalized in accordance with the Term Sheet insofar as it applies to the projects in Idaho or, if the settlement is not consummated, that the State of Idaho and Idaho water users will still take the steps that are needed so that Reclamation can obtain water for flow augmentation, commencing in 2005, to

the extent and with the degree of reliability described in this biological assessment. If this proves not to be the case and Reclamation has to deviate from any of the proposed actions described herein, then consultation will be reinitiated on such action(s) in accordance with 50 C.F.R. 402.16 if required.

It is NOAA Fisheries' expectation that responsibility for temperature improvements in the mainstem of the Snake River in reaches occupied by listed anadromous fish species above the reservoir pool created by the Corps of Engineers' Lower Granite Dam will be resolved in discussions that will occur outside the scope of the Snake River Basin Adjudication and the implementation of the Term Sheet (NOAA Fisheries 2004). Accordingly, Reclamation has agreed with NOAA Fisheries that, after 2010, it may be necessary to reinitiate consultation on the proposed actions that are the subject of this biological assessment depending upon the status of actions to address water temperature (USBR 2004a).

## 2.3 Limitations on Reclamation's Discretion

It is Reclamation's view that the ESA regulations for this consultation apply to Reclamation's actions only to the extent that Reclamation has discretionary involvement in or control of them. However, as a matter of convenience in this biological assessment, Reclamation has chosen not to differentiate between the discretionary and non-discretionary components of any proposed action. Thus, while many aspects of the proposed actions are, pursuant to State water law, Federal reclamation law, and contracts with water users, non-discretionary on Reclamation's part, this biological assessment analyzes the effects resulting from both the discretionary and non-discretionary components of each proposed action. This section provides a brief (but not comprehensive) overview of the general limitations on Reclamation's discretion regarding the 11 proposed actions.

## 2.3.1 Project Authorizations

Reclamation received authorization for each of its projects from either Congress or the Secretary of the Interior, who had authority under the 1902 Reclamation Act to approve construction after a finding of feasibility. The Congressional and Secretarial authorizations state the purposes to be served by each project. Most of the projects are authorized for the primary purpose of irrigation. The Army Corps of Engineers constructed the Ririe and Lucky Peak Projects, which are authorized for local flood control and irrigation. Other specific legislation authorizes some storage facilities to be used for various combinations of local flood control, hydropower generation, recreation, and fish and wildlife purposes (see USBR 2004b for project-specific authorizations).

### 2.3.2 State Water Law and Water Rights

Reclamation secures state water rights for its projects that are consistent with the authorized project purposes. Section 8 of the Reclamation Act of 1902 requires the Secretary to proceed in conformity with state water laws in carrying out the provisions of Reclamation law. Water rights are secured in accordance with state water law, and water rights granted by the state are defined in terms of the type of water use, period of use, the source of the water, the location of the point of diversion and place of use, and the rate and total volume that may be diverted, if applicable. Any changes in water use from those described in the water right must generally be authorized by the state through an approval of a transfer of a water right. Watermasters as officers of the state oversee the diversion and use of water to assure compliance with water rights of record.

Federal law provides that Reclamation obtain water rights for its projects and administer its projects pursuant to state law relating to the control, appropriation, use, or distribution of water, unless the state laws are inconsistent with expressed or clearly implied Congressional directives [43 U.S.C. 383; *California v. United States*, 438 U.S. 645, 678 (1978); appeal on remand, 694 F.2d 117 (1982)]. Water can only be stored and delivered by a project for authorized purposes for which Reclamation has asserted or obtained a water right in accordance with Section 8 of the Reclamation Act of 1902 and applicable Federal law. Reclamation must operate projects in a manner that does not impair senior or prior water rights. Reclamation has an obligation to deliver water in accordance with the project water rights and contracts between Reclamation and its contractors.

#### 2.3.3 Contracts

In accordance with Federal reclamation law, a party who wishes to receive project water from a Reclamation project for irrigation or municipal and industrial (M&I) purposes must first enter into a contract with the United States pursuant to which they agree, among other things, to pay to the United States the costs of project construction that are allocable to irrigation and/or M&I purposes. In addition, project water users are generally required to bear all costs of annual O&M in the year in which those costs are incurred.

In consideration of this repayment obligation, the United States agrees to deliver project water to contractors in accordance with the terms and conditions set forth in the contract. While the contracts associated with the proposed actions that are the subject of this biological assessment are not identical to each other, they all impose on the United States a legally binding obligation to make deliveries of project water. Thus, Reclamation's discretion in carrying out the proposed actions is substantially circumscribed by virtue of its contractual obligations.

#### 2.3.4 Tribal Interests

The United States has entered into numerous treaties and agreements with tribes in the region. The proposed actions are consistent with these treaties and agreements (for example, the 1990 Fort Hall Indian Water Rights Agreement with the Shoshone-Bannock Tribes of the Fort Hall Reservation and the proposed Nez Perce water rights settlement).

# 2.4 Future O&M in the Snake River System above Milner Dam

## 2.4.1 Proposed Action

Future O&M in the Snake River system above Milner Dam includes:

- Storage in and release of water from Jackson Dam and Lake, Palisades Dam and Reservoir, Grassy Lake Dam and Lake, Island Park Dam and Reservoir, Ririe Dam and Reservoir, American Falls Dam and Reservoir, and Minidoka Dam and Lake Walcott.
- Diversion of water at Cascade Creek Diversion Dam, Falls Irrigation Pumping Plant, Minidoka Northside Headworks, Minidoka Southside Headworks, Unit A Pumping Plant, and Milner-Gooding Headworks.
- Power generation at Minidoka, Inman, and Palisades Powerplants.
- Routine maintenance (as described in Appendix B) at the above facilities.
- Provision of salmon flow augmentation water to Brownlee Reservoir (as
  described in Appendix B) from uncontracted reservoir space in Jackson Lake,
  American Falls, and Palisades Reservoirs; leased storage from the ShoshoneBannock Tribal water bank; annually rented storage from the Water District 01
  rental pool; and use of powerhead space in Palisades Reservoir (as described in
  Appendix B.1.2).

The above features and facilities are part of the Michaud Flats, Minidoka, Palisades, and Ririe Projects. Project lands are located discontinuously along the Snake River from the town of Ashton, Idaho, on the Henrys Fork and on the Snake River below Palisades Reservoir to about 300 miles downstream near the town of Bliss in south-central Idaho. The Michaud Flats project is authorized for irrigation. The Minidoka Project is authorized for irrigation and power. The Palisades Project is authorized for irrigation, power, local flood control, and fish and wildlife. The Ririe Project is authorized for local flood control, irrigation, municipal water supply, and recreation.

#### 2.4.2 Action Area

The action area associated with this proposed action includes these reservoir and river corridors (see Figure 2-1):

- Henrys Lake and the Henrys Fork from Henrys Lake downstream to its
  confluence with the Snake River (Henrys Lake is not part of the proposed
  action, but its operations are coordinated with Reclamation facilities).
- Cascade Creek downstream from Cascade Creek Diversion Dam to its confluence with Grassy Creek.
- Grassy Lake and Grassy Creek from Grassy Lake Dam downstream to its confluence with the Falls River, and the Falls River downstream to its confluence with the Henrys Fork.
- Ririe Reservoir and Willow Creek from Ririe Dam to its confluence with the Snake River.
- Jackson Lake and the Snake River from Jackson Lake downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

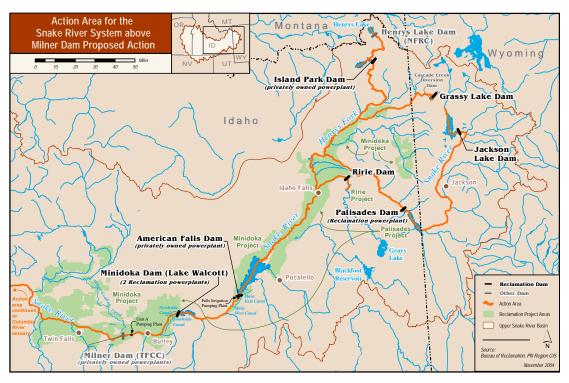


Figure 2-1. Action area and features and facilities for the proposed action in the Snake River system above Milner Dam.

# 2.5 Future Operations in the Little Wood River System

## 2.5.1 Proposed Action

Future operations in the Little Wood River system include storage in and release of water from Little Wood River Dam and Reservoir. These features and facilities are a part of the Little Wood River Project; they are authorized for irrigation, local flood control, minimal recreation facilities, and fish and wildlife measures.

### 2.5.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-2):

- Little Wood River Reservoir and the Little Wood River from the Little Wood River Dam downstream to its confluence with the Snake River.
- The Snake River from its confluence with the Little Wood River downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

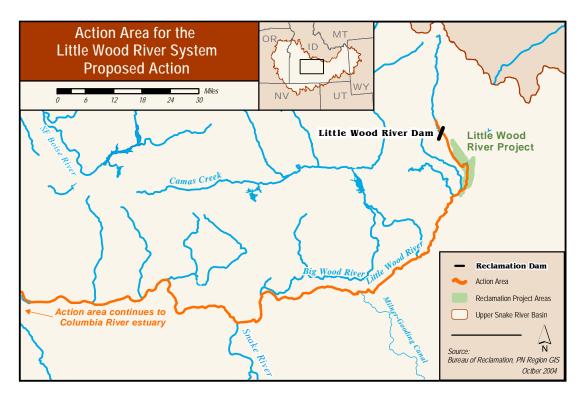


Figure 2-2. Action area and features and facilities for the proposed action in the Little Wood River system.

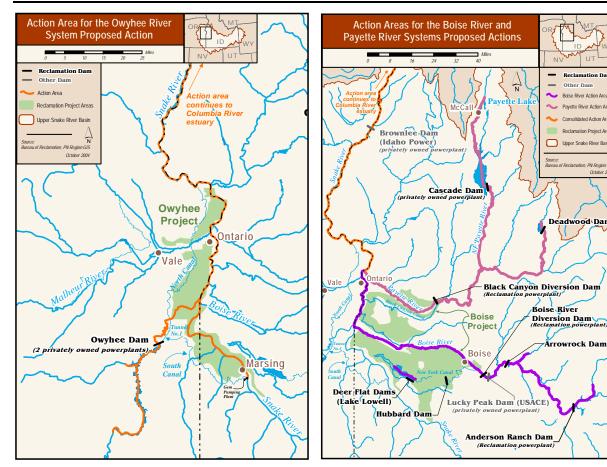


Figure 2-3. Action area and features and facilities for the proposed action in the Owyhee River system.

Figure 2-4. Action areas and features and facilities for the proposed actions in the Boise River system and Payette River system.

# **2.6** Future O&M in the Owyhee River System

## 2.6.1 Proposed Action

Future O&M in the Owyhee River system includes:

- Storage in and release of water from Owyhee Dam and Reservoir.
- Diversion of water into or at Tunnel No. 1, Dead Ox Pumping Plant, Ontario-Nyssa Pumping Plant, and Gem Pumping Plants #1 and #2.
- Routine maintenance (as described in Appendix B) at the above facilities.

The above features and facilities are a part of the Owyhee Project; they are authorized for the irrigation of about 124,000 acres of land in southeastern Oregon and southwestern Idaho.

#### 2.6.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-3):

- Owyhee Reservoir and the Owyhee River from Owyhee Dam downstream to its confluence with the Snake River.
- The Snake River from the Gem Pumping Plants (near RM 426.6) downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

# 2.7 Future O&M in the Boise River System

## 2.7.1 Proposed Action

Future O&M in the Boise River system includes:

- Storage in and release of water from Anderson Ranch Dam and Reservoir, Arrowrock Dam and Reservoir, Hubbard Dam and Reservoir, and Deer Flat Dams and Lake Lowell.
- Storage in and release of irrigation water from Lucky Peak Dam and Reservoir.
- Diversion of water at Boise River Diversion Dam.
- Power generation at Anderson Ranch and Boise River Diversion Dam Powerplants.
- Routine maintenance (as described in Appendix B) at the above facilities except Lucky Peak Dam and Reservoir.
- Provision of salmon flow augmentation water to Brownlee Reservoir (as
  described in Appendix B) from uncontracted storage space in Lucky Peak
  Reservoir, rented storage from the Water District 63 rental pool, and use of
  powerhead space in Anderson Ranch Reservoir.

The above features and facilities are a part of the Arrowrock Division of the Boise Project and the Lucky Peak Project. The Arrowrock Division facilities have various authorizations, including irrigation, local flood control, hydropower generation, conservation of fish, and recreation. The Lucky Peak Project (built by and within the jurisdiction of the Army Corps of Engineers) is authorized for local flood control and irrigation. Reclamation markets the stored water (for irrigation) and coordinates the operations of the Arrowrock Division of the Boise Project with the Lucky Peak

Project to accomplish flood control objectives and to store water for irrigation. The Army corps of Engineers has jurisdiction over operation and maintenance of Lucky Peak Project facilities.

#### 2.7.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-4 on page 18):

- Anderson Ranch Reservoir and the South Fork Boise River from Anderson Ranch Dam downstream to its confluence with the Boise River.
- Arrowrock Reservoir and the Boise River from Arrowrock Reservoir downstream to its confluence with the Snake River.
- Lake Lowell.
- The Snake River from its confluence with the Boise River downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

# 2.8 Future O&M in the Payette River System

## 2.8.1 Proposed Action

Future O&M in the Payette River system includes:

- Storage in and release of water from Deadwood Dam and Reservoir and Cascade Dam and Lake Cascade.
- Diversion of water at Black Canyon Diversion Dam.
- Power generation at Black Canyon Diversion Dam Powerplant.
- Routine maintenance (as described in Appendix B) at the above facilities.
- Provision of salmon flow augmentation water to Brownlee Reservoir (as
  described in Appendix B) from uncontracted space in Lake Cascade and
  Deadwood Reservoir and rented storage from the Water District 65 rental pool.

The above features and facilities are part of the Payette Division of the Boise Project. These facilities are authorized for irrigation and hydropower generation.

#### 2.8.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-4 on page 18):

- Payette Lake and the North Fork Payette River from Payette Lake downstream to its confluence with the Payette River, including Lake Cascade (Payette Lake is not a part of the proposed action, but its operations are coordinated with Reclamation facilities).
- Deadwood Reservoir and the Deadwood River from Deadwood Dam downstream to its confluence with the South Fork Payette River.
- The South Fork Payette River from its confluence with the Deadwood River downstream to its confluence with the North Fork Payette River.
- The Payette River from its confluence with the North Fork Payette River and South Fork Payette River downstream to its confluence with the Snake River.
- The Snake River from its confluence with the Payette River downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

# 2.9 Future O&M in the Malheur River System

## 2.9.1 Proposed Action

Future O&M in the Malheur River system includes:

- Storage in and release of water from Agency Valley Dam and Beulah Reservoir and Bully Creek Dam and Reservoir.
- Storage in and release of water associated with 50 percent of storage in Warm Springs Dam and Reservoir.
- Diversion of water at Harper and Bully Creek Diversion Dams.
- Routine maintenance (as described in Appendix B) at the above facilities.
- Provision of salmon flow augmentation water to Brownlee Reservoir (as described in Appendix B) from acquired natural flow rights of 17,650 acrefeet from the Malheur River (with supplemental Snake River rights).

The above features and facilities are part of the Vale Project. These facilities are authorized for irrigation and local flood control. The Bully Creek facilities are also

authorized for recreation and fish and wildlife preservation and propagation. Reclamation has an interest in 50 percent of the Warm Springs Reservoir.

#### 2.9.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-5):

- Beulah Reservoir and the North Fork Malheur River downstream from Agency Valley Dam to its confluence with the Malheur River.
- Bully Creek Reservoir and Bully Creek downstream from Bully Creek Diversion Dam to its confluence with the Malheur River.
- Warm Springs Reservoir and the Malheur River downstream from Warm Springs Dam to its confluence with the Snake River.
- The Snake River from its confluence with the Malheur River downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

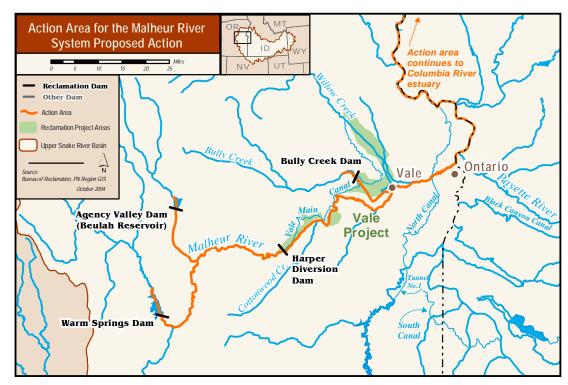


Figure 2-5. Action area and features and facilities for the proposed action in the Malheur River system.

# 2.10 Future O&M in Mann Creek System

## 2.10.1 Proposed Action

Future O&M in the Mann Creek system includes:

- Storage in and release of water from Mann Creek Dam and Reservoir.
- Diversion of water at Mann Creek Dam outlet.
- Routine maintenance (as described in Appendix B) at the above facilities.

The above features and facilities are part of the Mann Creek Project, which is authorized for the irrigation of about 5,100 acres of land near Weiser, Idaho. The authorization also includes minimum basic recreation facilities and fish and wildlife conservation and development.

#### 2.10.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-6):

- Mann Creek Reservoir and Mann Creek downstream from Mann Creek Dam to its confluence with the Weiser River
- The Weiser River from its confluence with Mann Creek downstream to its confluence with the Snake River.
- The Snake River from its confluence with the Weiser River downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

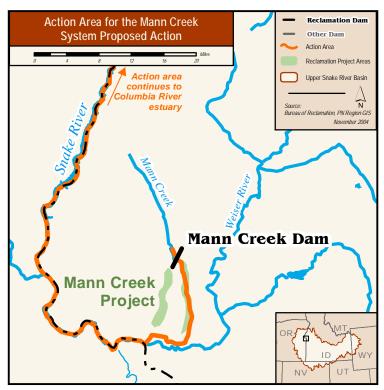


Figure 2-6. Action area and features and facilities for the proposed action in the Mann Creek system.

# 2.11 Future O&M in the Burnt River System

## 2.11.1 Proposed Action

Future O&M in the Burnt River system includes:

- Storage in and release of water from Unity Dam and Reservoir.
- Routine maintenance (as described in Appendix B) at the above facilities.

The above features and facilities are part of the Burnt River Project, which is authorized for irrigation of about 15,600 acres of land in eastern Oregon.

#### 2.11.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-7):

- Unity Reservoir and the Burnt River from Unity Dam downstream to its confluence with the Snake River.
- The Snake River from its confluence with the Burnt River downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

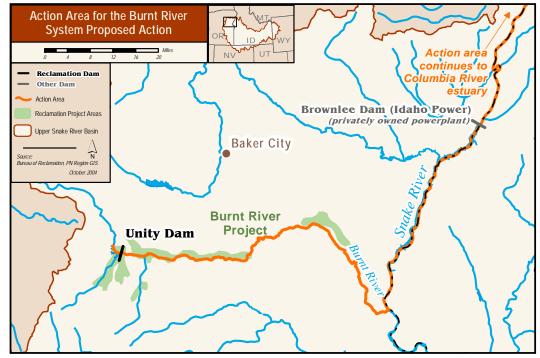


Figure 2-7. Action area and features and facilities for the proposed action in the Burnt River system.

# 2.12 Future O&M in the Upper Powder River System

## 2.12.1 Proposed Action

Future O&M in the upper Powder River system includes:

- Storage in and release of water from Mason Dam and Phillips Lake.
- Diversion of water at Savely Dam and Lilley Pumping Plant.
- Routine maintenance (as described in Appendix B) at the above facilities.

The above facilities are part of the Upper Division of the Baker Project, which is authorized for irrigation, local flood control, measures to conserve fish and wildlife, and recreation. The Upper Division provides irrigation water to about 19,000 acres of land in and around Baker City, Oregon.

#### 2.12.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-8):

• Phillips Lake and the Powder River downstream from Mason Dam to its confluence with the Snake River.

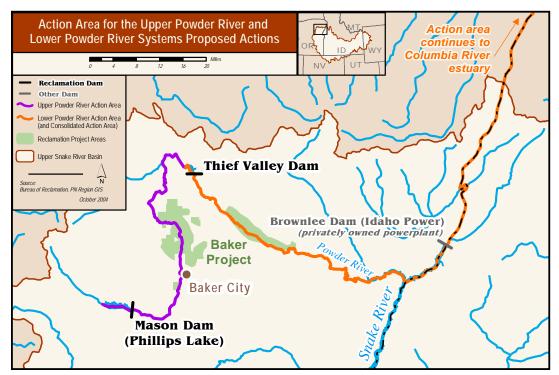


Figure 2-8. Action areas and features and facilities for the proposed actions in the upper Powder River system and the lower Powder River system.

- The Snake River from its confluence with the Powder River downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

# 2.13 Future O&M in the Lower Powder River System

### 2.13.1 Proposed Action

Future O&M in the lower Powder River system includes:

- Storage in and release of water from Thief Valley Dam and Reservoir.
- Routine maintenance (as described in Appendix B) at the above facilities.

The above features and facilities are part of the Lower Division of the Baker Project, which is authorized for the irrigation of about 7,300 acres of land downstream from Thief Valley Dam and Reservoir near Baker City, Oregon.

#### 2.13.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors (see Figure 2-8 on page 25):

- Thief Valley Reservoir and the Powder River downstream from Thief Valley Dam to its confluence with the Snake River.
- The Snake River from its confluence with the Powder River downstream to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

# 2.14 Future Provision of Salmon Flow Augmentation from Rental or Acquisition of Natural Flow Rights

## 2.14.1 Proposed Action

This action is Reclamation's future provision of salmon flow augmentation water to Brownlee Reservoir (as described in Appendix B) from acquired or long-term leased

consumptive natural flow water rights from the Snake River between Milner Dam and Swan Falls Dam (high-lift pumpers) during the salmon flow augmentation period.

The Term Sheet contemplates Reclamation acquiring or entering into a long-term lease of 60,000 acre-feet from consumptive natural flow water rights diverted and consumed below Milner Dam, with a corresponding increase in flow augmentation, for a total of 487,000 acre-feet. The Term Sheet also contemplates that third parties may acquire natural flows or other water supplies to substitute for reservoir storage that would otherwise be used for flow augmentation. For this analysis, Reclamation assumes that as noted above, it may secure up to 100,000 acre-feet of natural flows in a given year for flow augmentation. Only the first 60,000 acre-feet of secured natural flows will be used to increase the flow augmentation volume beyond 427,000 acre-feet.

#### 2.14.2 Action Area

The action area associated with this proposed action includes these river and reservoir corridors:

- The Snake River downstream from Milner Dam to its confluence with the Columbia River.
- The Columbia River from its confluence with the Snake River to the Columbia River estuary.

## 2.15 Literature Cited

Parenthetical Reference	Bibliographic Citation
Nez Perce Tribe et al. 2004	Nez Perce Tribe, the State of Idaho, and the U.S. Department of the Interior. 2004. Mediator's Term Sheet. May 15, 2004. Website: www.doi.gov/news/NPTermSheet.pdf.
NOAA Fisheries 2004	National Marine Fisheries Service. 2004. Letter from D. Robert Lohn, Northwest Regional Administrator, National Marine Fisheries Service, to J. William McDonald, Pacific Northwest Regional Director, Bureau of Reclamation. Letter dated May 12, 2004.
USBR 2004a	U.S. Bureau of Reclamation. 2004a. Letter from J. William McDonald, Pacific Northwest Regional Director, Bureau of Reclamation, to D. Robert Lohn, Northwest Regional Administrator, National Marine Fisheries Service. Letter dated May 14, 2004.

#### **Parenthetical Reference**

### **Bibliographic Citation**

USBR 2004b

U.S. Bureau of Reclamation. 2004b. *Operations Description for Bureau of Reclamation Projects in the Snake River Basin above Brownlee Reservoir*. Snake River Area, Pacific Northwest Region, Boise, Idaho.